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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,583	07/16/2003	Christian Wachter	GKNG 1160 PUS	8891
7590	08/30/2004		EXAMINER	
Robert P. Renke Suite 250 28333 Telegraph Road Southfield, MI 48034			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,583

Applicant(s)

WACHTER ET AL.

Examiner

Roger L Pang

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12, 14 and 17 is/are rejected.
- 7) ☒ Claim(s) 13 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7-16-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following action is in response to communications filed for application 10/620,583 on July 14, 2004.

Election/Restrictions

Claims 5 and 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on July 14, 2004.

Drawings

Please note: if claim 5 should be rejoined, the limitations within that claim are not shown in the present drawings.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claim 11, the limitations of "the outer bearing races" and "the angular contact bearings" lack antecedent basis. With regard to claim 14, the limitation of "the bearing regions" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-9, and 11-12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffith '926. With regard to claim 1, Griffith teaches a differential drive comprising: a drive housing 6 in which a differential carrier 22 is rotatably supported around its longitudinal axis; sideshaft gears 31 which are supported so as to be rotatable around said longitudinal axis relative to the differential carrier; and differential gears 26 which are supported in the differential carrier rotatably around axes extending radially relative to the longitudinal axis, said differential gears engaging the sideshaft gears and rotating together with the differential carrier (Fig. 2), wherein the differential carrier forms journals 24 which extend coaxially relative to the longitudinal axis and by means of which the differential carrier is rotatably supported in the sideshaft gears and wherein the sideshaft gears are rotatably supported in the drive housing (Fig. 2). With regard to claim 2, Griffith teaches the drive, wherein the sideshaft gears are supported by rolling contact bearings 44 in the drive housing. With regard to claim 3, Griffith teaches the drive, wherein the regions of tooth engagement between the sideshaft gears and the differential gears are located outside the differential carrier (Fig. 2). With regard to claim 6, Griffith teaches the drive, wherein the differential gears are inserted into axial broken-out regions in a radial disc member (Fig. 6), said radial disc member adapted to secure a ring gear 19 in the differential carrier. With regard to claim 7, Griffith teaches the drive, wherein the

Art Unit: 3681

sideshaft gears are directly connected to outer joint parts 35 of constant velocity joints. With regard to claim 8, Griffith teaches the drive, wherein rolling contact bearings 44 are axially fitted between the sideshaft gears and the outer joint parts (Fig. 2). With regard to claim 9, Griffith teaches the drive, wherein pre-assembled modules each consisting of a sideshaft gear 31, an outer joint part 35 of a constant velocity joint and a rolling contact bearing 44 are insertable into the drive housing. With regard to claim 11, Griffith teaches the drive, wherein outer bearing races 45 of angular contact bearings 44 have an inner diameter greater than the outer diameter of the outer joint parts 35, so as to be axially slipped over the outer joint parts (Fig. 2). With regard to claim 12, Griffith teaches the drive, wherein the rolling contact bearings are angular contact roller bearings (Fig. 2). With regard to claim 14, Griffith teaches the drive, wherein effective lines of load of the rolling contact bearings pass through bearing regions of the differential carrier in the sideshaft gears approximately axially centrally (Fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith as applied to claim 1 above, and further in view of Arnold. Griffith teaches the drive, wherein the journals are integrally connected to one another, but lacks the teaching wherein said journals are hollow. Arnold teaches a differential, wherein support journals (Fig. 1) of a carrier for

Art Unit: 3681

sideshaft gears 18/20 are hollow. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Griffith to employ hollow journals in view of Arnold, in order to save on weight.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith as applied to claim 7 above, and further in view of Szalony. Griffith teaches the drive wherein the sideshaft gears are rotatably connected to the outer joint parts (Fig. 2). Griffith lacks the teaching of said connection being a weld. Szalony teaches a differential, wherein means for connection include methods such as welding (Col. 4). It would have been obvious to one of ordinary skill at the time of the invention to modify Griffith to employ a welded connection in view of Szalony in order to ensure a non-rotatable connection, and prevent relative rotation due to wear.

Allowable Subject Matter

Claims 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3681

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Griffith 258, Guilbert, Walker and Littke have been cited to show similar sideshaft gear supporting journals.

Williamson, Diederich, and Rzeppa have been cited to show differentials with similar constant velocity connections.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Art Unit: 3681

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)


If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445. The examiner can normally be reached on 5:30am to 4:00pm.

Art Unit: 3681

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang
Patent Examiner
Art Unit 3681

August 26, 2004